Jefferson County Sewer System Customer Water Demand Summary 60.0 55.0 50.0 45.0 Demand (mgd) 40.0 35.0 30.0 20.0 2035 2040 2020 2025 2030 2000 2005 2010 2015 Ave Day - - - - Ave (Proj High) - - - Ave (Proj Base) Ave (Proj Low)

Figure 8 - Summary of Water Demand Projections

In the absence of rate increases, rate structure changes, or new revenue sources, the System will experience a severe decline in annual revenue from what exists today as a result of declines in population and overall water demand. Total revenues generated under existing rates are projected to decrease from approximately \$155 million in 2011 to approximately \$145 million in 2016. Even if System costs do not increase at all, sewer user charges will need to be increased 6.45% over the next five years just to account for the drop in revenues as a result of decline in customers and usage. <sup>183</sup>

### 2. Non-Rate System Revenues Will Not Increase.

Non-rate revenues comprise a very small portion of total System revenues, approximately \$10.6 million in 2011.<sup>184</sup> Non-rate revenue sources include the annual sewer ad valorem tax, and a small amount of revenue from miscellaneous charges such as impact fees, surcharge fees, and

<sup>&</sup>lt;sup>183</sup> B&V Cost Allocation Study at Table 2-4. The B&V Cost Allocation Study is discussed in more detail in Section VI *infra*.

<sup>&</sup>lt;sup>184</sup> B&V Cost Allocation Study at Table 2-5.

miscellaneous permit fees. Among these non-rate revenue sources, the sewer ad valorem tax generates the most revenue, approximately \$5.7 million per year. 185

The state legislature sets the level of the ad valorem tax. From its establishment in 1901 until 1978, the sewer ad valorem tax was set at 0.5 mills (5 cents on each \$100 of the percentage of assessed property value subject to taxation). In 1978, the rate was adjusted to 0.7 mills solely to account for potential losses from Amendment 373 to the state constitution, which set new limits on the percentage of property value subject to taxation. Aside from this adjustment, the ad valorem tax has not been increased since its establishment in 1901.

In 2003, the County's consultant BE&K noted that the County's total ad valorem taxes were 40% lower than the mean total ad valorem taxes of 31 similar municipalities. BE&K recommended that the County seek legislative authority to increase the ad valorem tax by approximately 7 mills, which would generate approximately \$44 million in additional annual revenue, with only a marginal increase in total resident tax burden. Even with the 7-mill increase, total resident tax burden in Jefferson County would still remain lower than many other areas. As BE&K noted, increasing the ad valorem tax would result in lower future sewer rate increases and would more equitably spread the burden of paying for the System among all those who benefit from the System, which the Alabama Supreme Court found in *Keene v. Jefferson County*, 33 So. 435 (Ala. 1903), includes all residents of Jefferson County. The County did not pursue BE&K's recommendation.

Absent a change from the state legislature, the sewer ad valorem tax will remain at the current 0.7 mills level, only slightly above the level first authorized in 1901. In addition, the System revenues generated from both the ad valorem tax and the remaining miscellaneous charges are both impacted by customer growth. As explained in the Demand Study, the System is not projected to experience customer growth; instead, the number of System customers is expected to decline. Therefore, the System's total non-rate revenues are not expected to increase significantly above the current level of approximately \$10.6 million per year.

### C. The System's Future Debt Service Costs Are Unknown.

The amount of the necessary revenue increase is determined by the System's revenue requirement. A utility's revenue requirement is the amount of revenue necessary to meet the utility's costs of providing service. In simplest terms, the revenue requirement is the sum of the following costs: (1) O&M expenses; plus (2) required capital expenditures; plus (3) debt service costs (required principal and interest payments and specified reserves). As discussed in the previous sections, the Receiver has determined the System's projected O&M expenses will decline in the short-term and then level out, and the System's required capital expenditures will increase. The Receiver also has determined that based on the Demand Study and an examination of non-rate revenues, total System revenues will decline without rate increases or other sources of revenue. At this time, however, the System's future total debt costs are uncertain.

<sup>&</sup>lt;sup>185</sup> *Id*.

<sup>&</sup>lt;sup>186</sup> PARCA Report at Appx. D, p.3.

<sup>&</sup>lt;sup>187</sup> BE&K Report at 13-2.

<sup>&</sup>lt;sup>188</sup> Id. at 13-3.

<sup>&</sup>lt;sup>189</sup> Id. at 13-2.

To determine the revenue required to refinance the entire approximately \$3.158 billion of System debt currently outstanding, the Receiver asked B&V to prepare an analysis of total revenues required to pay all of the System's costs, including the annual debt service costs and coverage requirements for the next five years. The analysis assumes refinancing of the entire \$3.158 billion at current market rates, and that sewer revenues would increase uniformly for three years. As shown in the table below, in just the first five years, sewer user charges would have to be increased a total of 220%, with a 50.2% increase in 2012; another 42.7% in 2013; and a third 42.7% in 2014, followed by smaller increases the remaining two years: 190

Table 5 - Revenue Requirements Assuming Refinancing of \$3.158 Billion at Current Fixed Market Rates

Line		Projected											
No.	Description		2011	_	2012		2013	_	2014		2015	_	2016
1	Beginning Operating Fund Balance	\$	4,197,000	\$	19,630,000	\$	42,616,000	\$	55,763,000	\$	124,002,000	\$	193,806,000
	Revenues: Revenue from Rates:												
2	Revenue under Existing Rates	\$	152,797,000	\$	150,746,000	\$	148,723,000	\$	146,726,000	\$	144,757,000	\$	142,814,000
3 4	Grease Septage		138,000 398,000		138,000 398,000		138,000 398.000		138,000 398,000		138,000 398,000		138,000 398,000
5	Industrial Surcharge		1.468.000		1,468,000		1,468,000		1,468,000		1,468,000		1,468,000
6	Subtotal	\$	154,801,000	\$	152,750,000	\$	150,727,000	\$	148,730,000	\$	146,761,000	\$	144,818,000
7	Additional Revenue From Rate Increases		_		70.290.000		164,279,000		294.827.000		305,820,000		317,262,000
8	Total Revenue from Rates	\$	154,801,000	\$	223,040,000	\$	315,006,000	\$	443,557,000	\$		\$	462,080,000
9	Other Operating Revenue		4,755,000		4,780,000		4,804,000		4,829,000		4.855.000		4,881,000
10	Non-Operating Revenue		5,812,000		5,928,000		8,618,000		9,151,000		9,964,000		10,796,000
11	Total Revenues	\$	165,368,000	\$	233,748,000	\$	328,428,000	\$	457,537,000	\$	467,400,000	\$	477,757,000
12	Revenue Requirements: O&M Expenses	\$	62,851,000	\$	60,127,000	\$	58,337,000	\$	59,353,000	\$	60,186,000	\$	62,333,000
13 14 15	Debt Service Requirements Existing Debt Service Senior Lien Debt Subordinate Lien Debt		81,736,000		83,432,000 55,622,000		130,321,000 86,881,000		194,583,000 129,724,000		199,022,000 132,681,000		202,939,000 135,290,000
16 17	Total Existing Debt Proposed Future Debt Service	\$	81,736,000	\$	139,054,000	\$	217,202,000	\$	324,307,000	\$	331,703,000	\$	338,229,000
18	Total Debt Service	\$	81,736,000	\$	139,054,000	\$	217,202,000	\$	324,307,000	\$	331,703,000	\$	338,229,000
19 20 21	Capitalized Labor Delinquent/Uncollectible Accts Transfer to Construction Fund		5,348,000 -		(2,981,000) 6,631,000 7,931,000		(3,085,000) 7,825,000 35,002,000		(3,193,000) 8,831,000		(3,305,000) 9,012,000 -		(3,421,000) 9,202,000
22	Total Revenue Requirements	\$	149,935,000	\$	210,762,000	\$	315,281,000	\$	389,298,000	\$	397,596,000	\$	406,343,000
23	Annual Operating Balance	\$	15,433,000	\$	22,986,000	\$	13,147,000	\$	68,239,000	\$	69,804,000	\$	71,414,000
24	End of Year Balance	\$	19,630,000	\$	42,616,000	\$	55,763,000		124,002,000		193,806,000	\$	265,220,000
25	Minimum Required Operating Balance	\$	10,332,000	\$	9,884,000	\$	9,590,000	\$	9,757,000	\$	9,894,000	\$	10,247,000
	Debt Service Coverage:												
26	Senior Lien Debt Service Coverage		119%		200%		201%		200%		200%		200%
27 28	Minimum Required		200%		200%		200%		200%		200%		200%
28 29	Total Debt Service Coverage Minimum Required		119% <i>120</i> %		120% 120%		121% 120%		120% 120%		120% 120%		120% 120%
	Indicated Revenue Increases				-20,0		-2070		-2070		-20/0		2070
30	Annual		0.0%		50.2%		42.7%		42.7%		0.9%		3.7%
	Cumulative		0.0%		50.2%						2.2 /0		3.7 70

The rate increases identified in the table above have the potential to cause significant rate shock to many residential customers, and in the Receiver's judgment, should not be implemented at this time. However, this scenario reveals the serious nature of the current funding deficit and the importance of reaching a negotiated solution to the debt crisis.

<sup>&</sup>lt;sup>190</sup> B&V Cost Allocation Study at Table 4-1.

#### V. The Planned Interim Rate Increase.

As outlined in the previous sections of this report, a review of the System's current financial condition clearly demonstrates the need for an immediate rate increase. System revenues are declining each year due to declining customers and demand, while the System faces substantial operating and capital costs necessary to provide reliable service and maintain regulatory compliance. The System has never been adequately funded dating back to its creation in 1901. This longstanding failure to adequately fund the System ultimately led to entry of the Consent Decree. Following entry of the 1996 Consent Decree, the County ignored multiple warnings and recommendations from its own consultants and repeatedly refused to implement rate increases necessary to pay the massive debt it incurred. Rate increases fell below recommended levels as early as 2003, and there have been no rate increases at all since 2008. Currently, the only option available to the Receiver to increase revenues is through increases to sewer user charges. Regardless of how and at what amount the existing \$3.158 billion in outstanding debt is restructured or refinanced, it is clear that revenues must be increased.

The Receiver has determined that an interim rate increase sufficient to increase revenues by 25% is appropriate. This planned rate increase is intended to be a first significant step towards a resolution of the System's overall debt crisis. The County effectively destroyed its reputation in the capital markets when it defaulted on the warrants and exacerbated problems when it suspended the Rate Covenant and decided that it would not raise sewer rates to address the System's debt crisis. If the County is to restore its credibility in the country's capital markets, which is essential for purposes beyond the System (e.g., schools, roads, and any number of other capital needs of the County), it must be seen as taking steps to repay its debt. This rate increase will be a first step in that process.

As noted throughout this report, a negotiated solution to the System's debt crisis is in the best interest of all stakeholders – the County, its citizens, the ratepayers, and the County's creditors – and would give all parties the best possible solution. The County's best possibility of managing future rate increases and having a viable wastewater system is to achieve a negotiated solution – this solution will almost certainly involve significant rate increases, regardless of what the elected officials of the County may feel inclined to tell their constituents. The surest path for the various creditors groups to protect their investment is to strike a deal with the County – that deal will almost certainly involve significant concessions as to the principal amount owed by the County. At the heart of any bargain, which is what the County and its creditors need to reach, are unpopular or unpalatable concessions by both sides to reach a result that benefits both parties and is more favorable than the result both sides would otherwise have been likely to achieve in the absence of the bargain.

In the meantime, the Receiver intends to implement multiple rate increases until System revenues are sufficient. The County, for the better part of a decade, has charged System customers rates that were insufficient to maintain the long term financial health of the System (in much the same manner it has for most of the System's existence), and it has not raised rates at all since 2008. Rates *must* be raised *now*, and must continue to increase in the future until revenues reach the level sufficient to support the System's operations, maintain the System's

<sup>&</sup>lt;sup>191</sup> Several current County Commissioners have publicly stated that they will not consider any rate increases.

infrastructure, and satisfy its debt obligations (either its current debt obligations or whatever those debt obligations may turn out to be through some resolution).

The following sections describe the significant factors the Receiver relied upon to reach the determination that a 25% interim rate increase is the appropriate first step.

# A. The 25% Revenue Increase is Less than the 32% Increase that Would Have Been Required Under the Lookback Analysis Assuming the County Had Financed All Debt with Fixed Rate Financing.

The County's 2008 default under the Indenture was precipitated principally by the collapse of the refinancing transactions the County entered into in 2002 and 2003. As previously discussed, by 2002, the County had borrowed billons of dollars to finance improvements necessary to comply with the 1996 Consent Decree, and needed still more money to complete the compliance plan. In order to postpone the necessary rate increases as long as possible, the County used an extremely back-loaded financing structure which called for significantly escalating increases in debt service requirements in later years. The County borrowed the first several years of interest payments, and in 2002 and 2003, that additional borrowing began to come due, and the revenues required to meet the current debt service payments increased. Instead of raising rates to the levels required to begin paying down the debt, the County took on even more risk in an attempt to postpone the inevitable rate increases even further. In an ultimately unsuccessful and risky attempt to minimize the rising costs of servicing the substantial amount of debt and keep sewer rates artificially as low as possible, the County refinanced most of its fixed rate debt into auction and variable rate debt in 2002 and 2003. To offset its debt service payments, the County also entered into several interest rate swaps as a hedge against market interest rate exposure.

Much of the media attention surrounding the sewer debt crisis has focused on the 2002 and 2003 refinancing and swap transactions, and the alleged financial fraud and wrongdoing surrounding those transactions. The collapse of these 2002 and 2003 refinancing transactions was the first in a series of events that largely determined the timing of the County's default in 2008. In order to gauge the impact of these 2002-2003 refinancing transactions as compared to the larger overall financial impact of the Consent Decree capital program on rates, the Receiver engaged B&V to provide a "Lookback Analysis." A copy of the B&V report on the Lookback Analysis is included in the Appendix at A-19. The purpose of this Lookback Analysis was to determine the approximate level of revenue from sewer user charges that would be required to meet outstanding debt obligations if the County had not entered into the 2002-2003 auction, variable rate, and swap transactions, but instead had continued to fund the System's capital program with fixed rate bonds like those originally issued between 1997 and 2002.

The B&V Lookback Analysis assumed that fixed rate bond issuances implemented from 1997 through FY 2001 remained in place and were not refinanced with variable rate financing in 2002-2003. The Lookback Analysis also assumed that all additional funds needed for financing of capital projects in 2002 and 2003 were also financed through fixed rate bonds at then-prevailing interest rates. The result of the Lookback Analysis is an indication of the level of rate

<sup>&</sup>lt;sup>192</sup> The swap agreements have since been terminated.

increases that would have been required from 2002 to 2010 to fund the capital program using only fixed rate bond issuances, and without any of the 2002-2003 variable rate, auction rate, or swap transactions.

B&V examined the actual revenues produced under the rates in place for each year from 2002 to 2010, and compared that revenue to the actual annual operation and maintenance expenses and debt service costs that would have been incurred by the System for the same period using fixed rate financing. B&V then calculated the additional debt service costs from the hypothetical fixed rate financing the County would need to obtain the additional funds the System borrowed from 2002-2010.

Table 6 - Lookback Analysis: Revenue Requirements Assuming All Fixed Rate Financing

Line													
No.	Description		2002	2003		2004	2005	2006	2007	2008	2009	2010	
			\$000		\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	
1	Beginning Operating Fund Balance	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ -	
	Revenues: Revenue from Rates:												
2	Revenue under Existing Rates	\$	76,956	\$	76,956	\$ 76,956	\$ 76,956	\$ 76,956	\$ 76,956	\$ 76,956	\$ 76,956	\$ 76,956	
3	Additional Rev. From Rate Incr.		84,082	_	89,961	89,961	97,068	136,460	136,460	136,460	136,460	136,460	
4	Total Revenue from Rates	\$	161,038	\$	166,917	\$166,917	\$174,024	\$213,416	\$213,416	\$213,416	\$ 213,416	\$213,416	
5	Other Revenue		11,846	_	16,265	15,965	19,044	17,118	17,713	19,994	19,528	19,248	
6	Total Revenues	\$	172,884	\$	183,182	\$182,882	\$193,068	\$230,534	\$231,129	\$ 233,410	\$ 232,944	\$ 232,664	
	Revenue Requirements:												
7	O&M Expenses	\$	40,555	\$	42,104	\$ 43,185	\$ 44,792	\$ 49,990	\$ 45,333	\$ 51,984	\$ 54,758	\$ 51,362	
	Debt Service Requirements												
8	Existing Debt Service		104,216		108,364	97,198	102,924	100,481	97,488	97,485	97,486	97,484	
9	Proposed Future Debt Service						37,043	80,063	80,063	80,063	80,063	80,063	
10	Total Debt Service	\$	104,216	\$	108,364	\$ 97,198	\$139,967	\$180,544	\$177,551	\$177,548	\$177,549	\$177,547	
11	Transfer to (from) Rate Stab. Fund		28,113		32,714	32,714	8,309	-	-	-	-	_	
12	Transfer to Depreciation Fund				-	9,785	-	-	8,245	3,878	637	3,755	
13	Cash Funded Capital Outlay	_	**	_									
14	Total Revenue Requirements	\$	172,884	\$	183,182	\$182,882	\$193,068	\$230,534	\$231,129	\$233,410	\$ 232,944	\$ 232,664	
15	Annual Operating Balance	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
16	End of Year Balance	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Calculated Required Revenue Increase	e:											
17	Annual		109.3%		3.7%	0.0%	4.3%	22.6%	0.0%	0.0%	0.0%	0.0%	
18	Cumulative (a)		109.3%		116.9%	116.9%	126.1%	177.3%	177.3%	177.3%	177.3%	177.3%	
	Actual Implemented Revenue Increas	e:											
19	Annual		17.3%		38.8%	10.0%	10.0%	7.1%	8.2%	7.7%	0.0%	0.0%	
20	Cumulative <sup>(a)</sup>		17.3%		62.8%	79.1%	97.0%	111.0%	128.3%	145.9%	145.9%	145.9%	

<sup>(</sup>a) Reflects the cumulative effect of previous revenue increases, as compared to revenues in FY 2001.

The Lookback Analysis reveals that the current System funding deficit was not solely or even primarily caused by the 2002-2003 refinancing transactions. The County's expenditures to comply with the Consent Decree have resulted in one of the highest, if not the highest, investment rate per customer for a major wastewater system anywhere in the country. The

Lookback Analysis also demonstrates that the funding deficit is the result of the County's long-standing failure to raise rates to levels sufficient to meet the System's obligations. This reinforces the need for an immediate increase in System revenues to begin the process of bringing revenues up to required levels.

The B&V Lookback Analysis calculated the level of rate increases that would have been required if the County had not refinanced its fixed rate debt in 2002-2003 with variable rate and auction rate debt, and had instead used all fixed rate financing to pay for the improvement program the County implemented to comply with the Consent Decree. This Lookback Analysis thus provides the level of rate increases that would have been required through 2010 without the 2002-2003 variable rate transactions. The Lookback Analysis shows that even without the 2002-2003 refinancing transactions, revenues today would need to be 31.5% higher in order to meet the minimum level required to comply with the County's contractual obligation to raise rates to levels necessary to fund the fixed rate debt it incurred. By not raising rates to at least 2010 levels necessary to support fixed rate financing, the County fell further behind by approximately \$325 million in funding the System's requirements, and the customers avoided paying \$325 in additional sewer user fees.

The Lookback Analysis only examines a fixed period of time from 2003 to 2010. Both the County's actual variable rate financing plans and the hypothetical fixed rate financing scenario used in the Lookback Analysis were based on a back-loaded structure that called for escalating future increases in total debt costs. Therefore, following the 31.5% increase necessary to bring revenues up to 2010 required levels, significant future rate increases would also be necessary under both scenarios.

Although not the sole criteria, the fact that the Receiver's planned first revenue increase of 25% is less than what would be required to bring the rates up to minimum 2010 levels in the Lookback Analysis provides additional support that the 25% revenue increase is a reasonable and appropriate first step.

# B. System User Charges Have Not Been Increased Since January 2008 and the 25% Revenue Increase is an Appropriate Make-Up for Not Having Increased Rates Over the Past Few Years.

Sewer user charges have not been increased at all since January 2008, over three years ago. A gauge of the level of rate increases experienced by other public wastewater systems over this same time period can be found in the 2010 Service Charge Index prepared by the National Association of Clean Water Agencies ("NACWA"). NACWA is an industry group comprised of over 300 of the largest public wastewater systems in the country. Each year since 1985, NACWA has collected financial and rate information from its members and published the results in a Service Charge Index that calculates average rate increases for each year. A copy of the 2010 NACWA Service Charge Index is included in the Appendix at A-20.

The 2010 NACWA Service Charge Index indicates that over the past five years, sewer rates have risen on average 6% per year. If System rates had increased at that same rate in January of 2009, 2010, and 2011, respectively, the total cumulative rate increase for those three years would be 19.1%. Based on this industry-wide average, the Receiver's recommended first

revenue increase of 25% is within the range of the increase needed to make up for the failure to raise rates in 2009, 2010, and 2011, even before consideration of the extreme capital requirements and O&M needs of the System compared to other wastewater utilities.

### C. The 25% Revenue Increase Will Not Cause Significant Rate Shock as Compared with Rate Increases Imposed by Other Utilities within the Last Few Years.

Based on 2010 billing data, the average residential customer of the System with the standard 5/8-inch meter uses approximately 6 Ccf of water per month. Based on that water usage, the same customer would receive an average monthly sewer bill of \$37.74 per month under existing rates.<sup>193</sup> With the Receiver's planned 25% revenue increase, this customer's average monthly bill will increase to \$46.88, which is an increase of \$9.14, or 24.2%.<sup>194</sup> This level of increase should not cause significant rate shock because it is within the range of the prior System rate increases in 2001 (21.4%) and 2003 (38.8%).

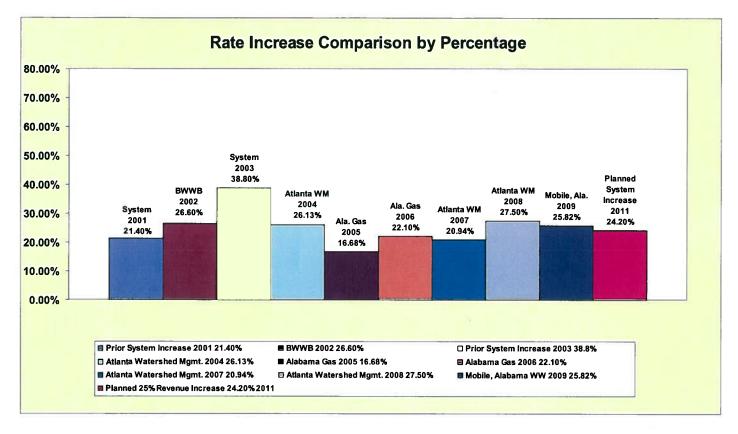
A rate increase that impacts the average residential bill by \$9.14 or 24.2%, as the planned 25% revenue increase does, is also within the range of rate increases imposed by other utilities over the past few years.<sup>195</sup>

The chart below demonstrates that the 24.2% impact of the Receiver's planned rate increase is within the range of percentage increases imposed in recent years by other utility providers in Alabama and the Atlanta Watershed Management Authority, the wastewater provider for the Atlanta area that is also operating under a Consent Decree.

<sup>&</sup>lt;sup>193</sup> B&V Cost Allocation Study at 21. The \$37.74 is calculated by multiplying the current \$7.40 Ccf rate for 5/8 meters by 85% of the total 6 Ccf usage (5.1 Ccf). Variances in meter size, usage, and rounding by water providers may produce different results for particular customers.

<sup>&</sup>lt;sup>195</sup> This information was gathered through contacts with the various utilities named and through publicly-available information.

Figure 9 - Rate Increase Comparison by Percentage



The \$9.14 impact of the Receiver's planned rate increase is also within the range of dollar increases implemented in recent years by other Alabama utilities and by Atlanta Watershed Management, as shown in the chart below: